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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,375	07/18/2003	Leif Johannsen	45900-000748/US	4046

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EXAMINER	
DABNEY, PHYLESHA LARVINIA	
ART UNIT	**PAPER NUMBER**
2615	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,375	JOHANNSEN ET AL.	
	Examiner	Art Unit	
	Phylesha L. Dabney	2646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *92-107* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *92-107* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/17/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the response to election requirement received on 27 February 2006 in which claims 1-91 were cancelled, and claims 92-107 were newly added.

Drawings

1. The drawings are objected to because one figure number references two distinct figures. For instance, "Fig. 4" represents two views, which should be denoted as 2 separate figure numbers, i.e. Fig 4a, 4b. Other incorrect denoted figures include figures 5, 9, and 13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 92-107 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,931,140 and claims 1-15 of U.S. Publication No. 2002/0114214 which was recently allowed. Although the conflicting claims are not identical, they are not patentably distinct from each other because although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of the claims present in the present application are covered by the scope of the claims in the copending application with obvious wording variations.

The Patent '140 and the Publication '214 teaches an electroacoustic transducer comprising a magnetic circuit having a first and a second gap; and dual diaphragms each with a coil system having portions of its electrically conducting path fastened to the

diaphragm and other portions of its electrically conducting path situated in respective ones of the first and second gaps, which are examples of obvious wording variations of the present application.

Claim Objections

3. Claim 105 is objected to because of the following informalities: missing punctuation. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 94 and 105 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 94 and 105, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted

> on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 92-107 are rejected under 35 U.S.C. 102(e) as being anticipated by van Halteren et al (U.S. Patent No. 6,931,140).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 92, van Halteren teaches an electroacoustic transducer comprising a magnetic circuit (10) having a first and a second gap (24), and magnetic means (4, 5) so to establish a magnetic field in each of the first and second gaps, the magnetic fields having the same direction; a diaphragm (1); and a coil system comprising at least one coil (2) forming an electrically conducting path, the coil system having portions of the electrically conducting path fastened to the diaphragm, the coil system further having first and second gap portions of its electrically conducting path situated in respective ones of the first and second gaps; wherein the magnetic means comprises a magnet (4, 5) arranged so that each of its magnetic poles defines a surface of respective ones of the first and second gaps.

Regarding claim 93, van Halteren teaches the transducer according to claim 92, wherein the first and second gap portions (34) of the coil system are adapted to conduct electrical current in substantially the same direction (col. 4 lines 61-65).

Regarding claim 94, van Halteren teaches the transducer according to claim 92, wherein a flexible circuit board, such as a flexprint, forms the diaphragm, and wherein the coil system is formed by electrically conducting paths on the flexible circuit board (flexprint; col. 6 lines 63 through col. 7 line 13).

Regarding claim 95, van Halteren teaches the transducer according to claim 94, further comprising electronic means (terminals, 6-9) mounted on the flexible circuit board (col. 6 lines 63 through col. 7 line 13, and col. 7 line 53-63).

Regarding claim 96, van Halteren teaches the transducer according to claim 92, wherein the magnetic circuit (10) comprises a body of magnetically conductive material, the body having a through-going opening (24), the opening having a pair of opposed surfaces, each of the opposed surfaces defining a surface of respective ones of the first and second gaps.

Regarding claim 97, van Halteren teaches the transducer according to claim 96, wherein the magnet (4, 5) is positioned symmetrically in the opening of the body of magnetically conductive material.

Regarding claim 98, van Halteren teaches the transducer according to claim 92, wherein the diaphragm (1) has electrically conductive portions, and wherein the coil system has electrically conducting path ends electrically connected to the electrically conductive portions of the diaphragm, the electrically conductive portions further having externally accessible portions for electrically terminating the transducer (col. 7 lines 7-13).

Regarding claim 99, as shown in figure 3, van Halteren teaches the transducer according to claim 92, further comprising a casing (3, 11) for housing the magnetic circuit, the casing comprising a rectangular-shaped opening being defined by two pairs of edges, the diaphragm being attached to the casing in a manner so as to at least partly cover the rectangular-shaped opening.

Regarding claim 100, van Halteren teaches the transducer according to claim 99, wherein the diaphragm (1) has a rectangular shape so as to cover the rectangular-shaped opening of the casing (3, 11).

Regarding claim 101, van Halteren teaches the transducer according to claim 92, wherein each of the first and second gaps (24) has upper and lower portions, and wherein the gap portions of the coil system (2) are positioned in the upper portions of the gaps, the transducer further comprising: a lower diaphragm (13) and a lower coil system comprising at least one coil (12) forming an electrically conducting path, the lower coil system having portions of the electrically conducting path fastened to the lower

diaphragm, the lower coil system further having first and second gap portions of its electrically conducting path situated in respective ones of the lower portions of the first and second gaps.

Regarding 102, van Halteren teaches an electroacoustic transducer coil system comprising a substantially flat fastening portion (35) for fastening the coil system to a diaphragm, and at least two gap portions (34) outside the fastening plane, each gap portion comprising a plurality of electrically conducting segments being substantially parallel to the fastening portion, wherein the gap portions of the coil system are adapted to conduct electrical current in the same direction (col. 4 lines 61-65), and wherein the gap portions are adapted for being positioned, in operation, in respective magnetic gaps (col. 6 lines 12-62).

Regarding claim 103, van Halteren teaches the coil system according to claim 102, comprising two substantially similar coils (2, 12) each having a gap portion positioned in respective ones of the gaps.

Regarding claim 104, van Halteren teaches the coil system according to claim 102, wherein the gap portions of the coils are substantially perpendicular to their fastening portions col. 6 lines 32-42).

Regarding claim 105, van Halteren teaches the coil system according to claim 102, wherein the coil is formed by electrically conducting paths formed on a flexible circuit board, such as a flexprint (col. 6 lines 63-65).

Regarding claim 106, van Halteren teaches the coil system according to claim 105, further comprising electronic means (terminals; 6-9) mounted on the flexible circuit board.

Regarding claim 107, van Halteren teaches the coil system according to claim 102, comprising a single twisted substantially flat coil (col. 6 lines 32-42).

6. Claims 92-100 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen et al (U.S. Publication No. 2002/0114212).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 92 and 98, Hansen teaches an electroacoustic transducer comprising a magnetic circuit (20) having a first and a second gaps (28), and magnetic means (26) so to establish a magnetic field in each of the first and second gaps, the

magnetic fields having the same direction; a diaphragm (40); and a coil system comprising at least one coil (30) forming an electrically conducting path, the coil system having portions of the electrically conducting path fastened to the diaphragm, the coil system further having first and second gap portions of its electrically conducting path situated in respective ones of the first and second gaps; wherein the magnetic means comprises a magnet (26) arranged so that each of its magnetic poles defines a surface of respective ones of the first and second gaps.

Regarding claim 93, Hansen teaches the transducer according to claim 92, wherein the first and second gap portions (34) of the coil system are adapted to conduct electrical current in substantially the same direction.

Regarding claim 94, Hansen teaches the transducer according to claim 92, wherein a flexible circuit board, such as a flexprint, forms the diaphragm, and wherein the coil system is formed by electrically conducting paths on the flexible circuit board (Paragraph 0018; page 2 column 1).

Regarding claim 95, Hansen teaches the transducer according to claim 94, further comprising electronic means (42) mounted on the flexible circuit board.

Regarding claim 96, Hansen teaches the transducer according to claim 92, wherein the magnetic circuit (20) comprises a body of magnetically conductive material, the body having a through-going opening (28), the opening having a pair of opposed

surfaces, each of the opposed surfaces defining a surface of respective ones of the first and second gaps.

Regarding claim 97, Hansen teaches the transducer according to claim 96, wherein the magnet (26) is positioned symmetrically in the opening of the body of magnetically conductive material.

Regarding claims 99-100, Hansen teaches the transducer according to claim 92, further comprising a casing (50) for housing the magnetic circuit, the casing comprising a rectangular-shaped opening being defined by two pairs of edges, the diaphragm (40) being attached to the casing in a manner so as to at least partly cover the rectangular-shaped opening.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L. Dabney whose telephone number is 571-272-7494. The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
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Or faxed to:

(703) 273-8300, for formal communications intended for entry and for informal or draft communications, please label "Proposed" or "Draft" when submitting an informal amendment.

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March 19, 2006
PLD

SINH TRAN
SUPERVISORY PATENT EXAMINER